



MMWRTM

Morbidity and Mortality Weekly Report

Recommendations and Reports

February 8, 2002 / Vol. 51 / No. RR-2

Continuing Education Activity Sponsored by CDC General Recommendations on Immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP) and the American Academy of Family Physicians (AAFP)

EXPIRATION — February 8, 2005

You must complete and return the response form electronically or by mail by **February 8, 2005**, to receive continuing education credit. If you answer all of the questions, you will receive an award letter for 2.0 hours Continuing Medical Education (CME) credit; 0.2 Continuing Education Unit (CEUs); 2.3 contact hours Continuing Nursing Education (CNE) credit; or 2.0 hours Certified Health

Education Specialist (CHES) credit. If you return the form electronically, you will receive educational credit immediately. If you mail the form, you will receive educational credit in approximately 30 days. No fees are charged for participating in this continuing education activity.

INSTRUCTIONS

By Internet

1. Read this *MMWR* (Vol. 51, RR-2), which contains the correct answers to the questions beginning on the next page.
2. Go to the *MMWR* Continuing Education Internet site at <<http://www.cdc.gov/mmwr/cme/conted.html>>.
3. Select which exam you want to take and select whether you want to register for CME, CEU, CNE, or CHES credit.
4. Fill out and submit the registration form.
5. Select exam questions. To receive continuing education credit, you must answer all of the questions. Questions with more than one correct answer will instruct you to "Indicate all that apply."
6. Submit your answers no later than **February 8, 2005**.
7. Immediately print your Certificate of Completion for your records.

By Mail or Fax

1. Read this *MMWR* (Vol. 51, RR-2), which contains the correct answers to the questions beginning on the next page.
2. Complete all registration information on the response form, including your name, mailing address, phone number, and e-mail address, if available.
3. Indicate whether you are registering for CME, CEU, CNE, or CHES credit.
4. Select your answers to the questions, and mark the corresponding letters on the response form. To receive continuing education credit, you must answer all of the questions. Questions with more than one correct answer will instruct you to "Indicate all that apply."
5. Sign and date the response form or a photocopy of the form and send no later than **February 8, 2005**, to:
Fax: 404-639-4198 Mail: MMWR CE Credit
Office of Scientific and Health Communications
Epidemiology Program Office, MS C-08
Centers for Disease Control and Prevention
1600 Clifton Rd, N.E.
Atlanta, GA 30333

6. Your Certificate of Completion will be mailed to you within 30 days.

ACCREDITATION

Continuing Medical Education (CME). CDC is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. CDC designates this educational activity for a maximum of 2.0 hours in category 1 credit toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

Continuing Education Unit (CEU). CDC has been approved as an authorized provider of continuing education and training programs by the International Association for Continuing Education and Training and awards 0.2 Continuing Education Unit (CEUs).

Continuing Nursing Education (CNE). This activity for 2.3 contact hours is provided by CDC, which is accredited as a provider of continuing education in nursing by the American Nurses Credentialing Center's Commission on Accreditation.

Certified Health Education Specialist (CHES). CDC is a designated provider of continuing education contact hours in health education by the National Commission for Health Education Credentialing, Inc. This program is a designated event for CHES to receive 2.0 hours in category 1 credit in health education, CDC provider number GA0082.

CENTERS FOR DISEASE CONTROL AND PREVENTION

SAFER • HEALTHIER • PEOPLETM

Goal and Objectives

This *MMWR* provides general guidelines on immunizations. These recommendations were developed by CDC staff, the Advisory Committee on Immunization Practices (ACIP), and the American Academy of Family Physicians (AAFP). The goal of this report is to improve vaccination practices in the United States. Upon completion of this activity, the reader should be able to a) identify valid contraindications and precautions for commonly used vaccines; b) locate the minimum age and minimum spacing between doses for vaccines routinely used in the United States; c) describe recommended methods for administration of vaccines; and d) list requirements for vaccination providers as specified by the National Childhood Vaccine Injury Act of 1986.

To receive continuing education credit, please answer all of the following questions.

1. Which of the following is not a vaccination provider requirement as specified by the National Childhood Vaccine Injury Act of 1986?
 - A. Provide a copy of the relevant current edition of the Vaccine Information Statement before each dose of vaccine.
 - B. Obtain a signed consent before administration of vaccine.
 - C. Record information regarding the vaccine in the recipient's permanent medical record.
 - D. Report certain vaccine adverse events to the Vaccine Adverse Event Reporting System (VAERS).
 - E. All of the above are required by the National Childhood Vaccine Injury Act of 1986.
2. What is the preferred option for spacing of tuberculin skin testing (purified protein derivative [PPD]) and administration of measles-containing vaccine?
 - A. PPD and measles-containing vaccine administered at the same visit.
 - B. PPD administered 72 hours before measles-containing vaccine.
 - C. PPD administered 4 weeks before measles-containing vaccine.
 - D. Measles-containing vaccine administered 72 hours before PPD.
 - E. Measles-containing vaccine administered 4 weeks before PPD.
3. What is the minimum age for administration of the second dose of inactivated poliovirus vaccine?
 - A. Four weeks.
 - B. Six weeks.
 - C. Ten weeks.
 - D. Sixteen weeks.
 - E. Twenty-four weeks.
4. A recent transfusion of whole blood is most likely to interfere with the response to which of the following vaccines?
 - A. Inactivated poliovirus vaccine.
 - B. Yellow fever vaccine.
 - C. Hepatitis B vaccine.
 - D. Measles vaccine.
 - E. Adult formulation of tetanus-diphtheria toxoid.
5. Which of the following is a valid contraindication to the administration of varicella vaccine?
 - A. Pregnancy.
 - B. Child who is being breast-fed.
 - C. Immunodeficient sibling living in the household.
 - D. Current antibiotic therapy.
 - E. All of the above are valid contraindications to the administration of varicella vaccine.
6. What action is recommended if varicella vaccine is inadvertently administered 10 days after a dose of measles-mumps-rubella (MMR) vaccine?
 - A. Repeat both vaccines ≥ 4 weeks after the varicella vaccine was administered.
 - B. Repeat only the MMR vaccine ≥ 4 weeks after the varicella.
 - C. Repeat only the varicella vaccine ≥ 4 weeks after the inadvertently administered dose of varicella vaccine.
 - D. Repeat only the varicella vaccine ≥ 6 months after the inadvertently administered dose of varicella vaccine.
 - E. No action is recommended; both doses are counted as valid.
7. What is the minimum needle length recommended for intramuscular injection of an infant?
 - A. $\frac{1}{2}$ inch.
 - B. $\frac{5}{8}$ inch.
 - C. $\frac{7}{8}$ inch.
 - D. 1 inch.
 - E. $1\frac{1}{4}$ inch.
8. Which of the following approaches is recommended for the vaccination of a person with substantial immunodeficiency?
 - A. Inactivated vaccine should be administered as indicated without regard to the immunodeficiency.
 - B. Live attenuated viral vaccines should generally not be administered to persons with severe immunodeficiency.
 - C. Persons with humoral immunodeficiency should receive varicella vaccine if indicated.
 - D. Live attenuated viral vaccines should be administered to susceptible household contacts of immunodeficient persons.
 - E. All of the above are approaches recommended for the vaccination of a person with substantial immunodeficiency.
9. What action is recommended if the interval between doses of hepatitis B vaccine is longer than the recommended interval?
 - A. Add one additional dose.
 - B. Add two additional doses.
 - C. Restart the series from the beginning.
 - D. Perform a serologic test to determine if a response to the vaccine has been obtained.
 - E. Continue the series, ignoring the prolonged interval.
10. Indicate your work setting.
 - A. State/local health department.
 - B. Other public health setting.
 - C. Hospital clinic/private practice.
 - D. Managed care organization.
 - E. Academic institution.
 - F. Other work setting.
11. Which best describes your professional activities?
 - A. Patient care — emergency or urgent care.
 - B. Patient care — inpatient.
 - C. Patient care — primary care clinic or office.
 - D. Laboratory or pharmacy.
 - E. Public health.
 - F. Other.
12. I plan to use these recommendations as the basis for ... (Indicate all that apply.)
 - A. health education materials.
 - B. insurance reimbursement policies.
 - C. local practice guidelines.
 - D. public policy.
 - E. other uses.
13. Have you administered ≥ 1 doses of vaccine in the last 12 months?
 - A. Yes.
 - B. No.

14. How much time did you spend reading this report and completing the exam and evaluation?
- Less than 2 hours.
 - 2-2.5 hours.
 - 2.5-3 hours.
 - More than 3 hours.
15. After reading this report, I am confident I can identify valid contraindications and precautions for commonly used vaccines.
- Strongly agree.
 - Agree.
 - Neither agree nor disagree.
 - Disagree.
 - Strongly disagree.
16. After reading this report, I am confident I can locate the minimum age and minimum spacing between doses for vaccines routinely used in the United States.
- Strongly agree.
 - Agree.
 - Neither agree nor disagree.
 - Disagree.
 - Strongly disagree.
17. After reading this report, I am confident I can describe recommended methods for administration of vaccines.
- Strongly agree.
 - Agree.
 - Neither agree nor disagree.
 - Disagree.
 - Strongly disagree.
18. After reading this report, I am confident I can list requirements for vaccination providers as specified by the National Childhood Vaccine Injury Act of 1986.
- Strongly agree.
 - Agree.
 - Neither agree nor disagree.
 - Disagree.
 - Strongly disagree.
19. The objectives are relevant to the goal of this report.
- Strongly agree.
 - Agree.
 - Neither agree nor disagree.
 - Disagree.
 - Strongly disagree.
20. The tables are useful.
- Strongly agree.
 - Agree.
 - Neither agree nor disagree.
 - Disagree.
 - Strongly disagree.
21. Overall, the format of the report enhanced my ability to understand the material.
- Strongly agree.
 - Agree.
 - Neither agree nor disagree.
 - Disagree.
 - Strongly disagree.

Detach or photocopy.

MMWR Response Form for Continuing Education Credit
February 8, 2002/Vol. 51/No. RR-2
General Recommendations on Immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP) and the American Academy of Family Physicians (AAFP)

To receive continuing education credit, you must

- provide your contact information;
 - indicate your choice of CME, CEU, CNE, or CHES credit;
 - answer all of the test questions;
 - sign and date this form or a photocopy;
 - submit your answer form by February 8, 2005.
- Failure to complete these items can result in a delay or rejection of your application for continuing education credit.

Click One
☐ CME Credit
☐ CEU Credit
☐ CNE Credit
☐ CHES Credit

Last Name _____ First Name _____

Street Address or P.O. Box _____

Apartment or Suite _____

City _____ State _____ ZIP Code _____

Phone Number _____ Fax Number _____

E-Mail Address _____

Fill in the appropriate blocks to indicate your answers. Remember, you must answer all of the questions to receive continuing education credit!

1. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	14. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
2. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	15. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
3. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	16. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
4. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	17. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
5. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	18. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
6. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	19. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
7. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	20. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
8. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	21. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
9. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	22. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
10. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F	23. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E
11. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F	24. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F
12. <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E	
13. <input type="checkbox"/> A <input type="checkbox"/> B	

Signature _____

Date / Completed Exam _____

22. These recommendations will affect my practice.

- A. Strongly agree.
- B. Agree.
- C. Neither agree nor disagree.
- D. Disagree.
- E. Strongly disagree.

23. The availability of continuing education credit influenced my decision to read this report.

- A. Strongly agree.
- B. Agree.
- C. Neither agree nor disagree.
- D. Disagree.
- E. Strongly disagree.

24. How did you learn about this continuing education activity?

- A. Internet.
- B. Advertisement (e.g., fact sheet, *MMWR* cover, newsletter, or journal).
- C. Coworker/supervisor.
- D. Conference presentation.
- E. *MMWR* subscription.
- F. Other.

Correct answers for questions 1-9
1. B; 2. A; 3. C; 4. D; 5. A; 6. C; 7. C; 8. E; 9. E.

Advisory Committee on Immunization Practices

Membership List, June 2001

Chairman: John F. Modlin, M.D., Professor of Pediatrics and Medicine, Dartmouth Medical School, Lebanon, New Hampshire.

Executive Secretary: Dixie E. Snider, Jr., M.D., Associate Director for Science, Centers for Disease Control and Prevention, Atlanta, Georgia.

Members: Dennis A. Brooks, M.D., Johnson Medical Center, Baltimore, Maryland; Richard D. Clover, M.D., University of Louisville School of Medicine, Louisville, Kentucky; Jaime Deseda-Tous, M.D., San Jorge Children's Hospital, San Juan, Puerto Rico; Charles M. Helms, M.D., Ph.D., University of Iowa Hospital and Clinics, Iowa City, Iowa; David R. Johnson, M.D., Michigan Department of Community Health, Lansing, Michigan; Myron J. Levin, M.D., University of Colorado School of Medicine, Denver, Colorado; Paul A. Offit, M.D., Children's Hospital of Philadelphia, Philadelphia, Pennsylvania; Margaret B. Rennels, M.D., University of Maryland School of Medicine, Baltimore, Maryland; Natalie J. Smith, M.D., California Department of Health Services, Berkeley, California; Lucy S. Tompkins, M.D., Ph.D., Stanford University Medical Center, Stanford, California; Bonnie M. Word, M.D., Monmouth Junction, New Jersey.

Ex-Officio Members: James Cheek, M.D., Indian Health Service, Albuquerque, New Mexico; Carole Heilman, M.D., National Institutes of Health, Bethesda, Maryland; Karen Midthun, M.D., Food and Drug Administration, Bethesda, Maryland; Martin G. Myers, M.D., National Vaccine Program Office, Atlanta, Georgia; Kristin Lee Nichol, M.D., VA Medical Center, Minneapolis, Minnesota; Col. Benedict M. Didega, M.D., Department of Defense, Falls Church, Virginia; Geoffrey S. Evans, M.D., Health Resources and Services Administration, Rockville, Maryland; T. Randolph Graydon, Health Care Financing Administration, Baltimore, Maryland.

Liaison Representatives: American Academy of Family Physicians, Martin Mahoney, M.D., Ph.D., Clarence, New York; Richard Zimmerman, M.D., Pittsburgh, Pennsylvania; American Academy of Pediatrics, Jon Abramson, M.D., Winston-Salem, North Carolina; Gary Overturf, M.D., Albuquerque, New Mexico; American Association of Health Plans, Eric K. France, M.D., Denver, Colorado; American College of Obstetricians and Gynecologists, Stanley A. Gall, M.D., Louisville, Kentucky; American College of Physicians, Kathleen M. Neuzil, M.D., Seattle, Washington; American Hospital Association, William Schaffner, M.D., Nashville, Tennessee; American Medical Association, H. David Wilson, M.D., Grand Forks, North Dakota; Association of Teachers of Preventive Medicine, W. Paul McKinney, M.D., Louisville, Kentucky; Canadian National Advisory Committee on Immunization, Victor Marchessault, M.D., Cumberland, Ontario, Canada; Hospital Infection Control Practices Advisory Committee, Jane D. Siegel, M.D., Dallas, Texas; Infectious Diseases Society of America, Samuel L. Katz, M.D., Durham, North Carolina; London Department of Health, David M. Salisbury, M.D., London, United Kingdom; National Immunization Council and Child Health Program, Mexico, Jose Ignacio Santos, M.D., Mexico City, Mexico; National Medical Association, Rudolph E. Jackson, M.D., Atlanta, Georgia; National Vaccine Advisory Committee, Georges Peter, M.D., Providence, Rhode Island; Pharmaceutical Research and Manufacturers of America, Kevin Reilly, Radnor, Pennsylvania.

Members of the General Recommendations on Immunization Working Group

Advisory Committee on Immunization Practices (ACIP), Lucy Tompkins, M.D.; Chinh Le, M.D.; Richard Clover, M.D.; Natalie Smith, M.D. ACIP Liaison and Ex-Officio Members, David H. Trump, M.D., Office of the Assistant Secretary of Defense (Health Affairs); Pierce Gardner, M.D., American College of Physicians; Georges Peter, M.D., National Vaccine Advisory Committee; Victor Marchessault, M.D., Canadian National Advisory Committee on Immunization; Geoffrey Evans, M.D., Health Resources and Services Administration; Richard Zimmerman, M.D., American Academy of Family Physicians; Larry Pickering, M.D., American Academy of Pediatrics; CDC staff member, William L. Atkinson, M.D.; other members and consultants, Margaret Hostetter, M.D., Yale Child Health Research Center; Mary Staat, M.D., Children's Hospital Medical Center of Cincinnati; Deborah Wexler, M.D., Immunization Action Coalition; John Grabenstein, Ph.D., U.S. Army Medical Command; Thomas Vernon, M.D., Merck Vaccine Division; and Fredrick Ruben, M.D., Aventis-Pasteur.

All *MMWR* references are available on the Internet at <http://www.cdc.gov/mmwr>. Use the search function to find specific articles.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

References to non-CDC sites on the Internet are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of these sites.

MMWR

The *Morbidity and Mortality Weekly Report (MMWR)* series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy on Friday of each week, send an e-mail message to listserv@listserv.cdc.gov. The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's Internet server at <http://www.cdc.gov/mmwr> or from CDC's file transfer protocol server at <ftp://ftp.cdc.gov/pub/Publications/mmwr>. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone 202-512-1800.

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone 888-232-3228.

All material in the *MMWR* series is in the public domain and may be used and reprinted without permission; however, citation of the source is appreciated.

☆U.S. Government Printing Office: 2002-733-100/69005 Region IV
